

## THE REAL SOURCE OF AMPHIZOA SECRETIONS

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In all known publications concerning the peculiar adepagous family Amphizoidae (including the author's recent revision<sup>1</sup>) an observational error has been perpetuated. This error is one resulting from the aquatic habit of all species of *Amphizoa*. When specimens are handled or agitated, they emit a viscous yellowish fluid which has an odor not unlike that of over ripe cantaloupes. It has always been believed that this exudation came from the joint between the femur and tibia of each hind leg. Actually it is discharged from the anus and is immediately spread over the entire abdominal surface by the thrashing about of the hind legs. Since the femora are just long enough to reach this fluid discharge, the observer always sees the femoral tips well covered with it. The fluid diffuses rapidly throughout the watery film on the abdominal sternites, and it is impossible by any superficial observation to determine its origin. The writer collected large numbers of *Amphizoa* last summer and placed them in glass tumblers to observe their behavior. It was impossible to tell where this yellowish liquid originated, even though the insect was under very close scrutiny at all times during its emission. Therefore a fresh specimen was placed in a dry glass tumbler and left until all of the water had evaporated from its body. It was then dumped out and quickly grasped between thumb and index finger and placed upside down under a stereoscopic microscope. Immediately a distinct yellowish mass of fluid was observed to be forming between the 9th hemitergites (or the paraprocts of the female) and the proctiger. After this bubble had reached considerable proportions, it was discharged with a feeble popping sound, accompanied by a mild spraying effect. As soon as the bubble was expelled the femoral tips were seen spreading the odorous substance over the terminal abdominal sternites, but the true origin of this viscous liquid had at last been satisfactorily determined.

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<sup>1</sup>Edwards, J. Gordon, 1951. Amphizoidae (Coleoptera) of the world. *Wasmann Journ. Biol.*, vol. 8, pp. 303-332.